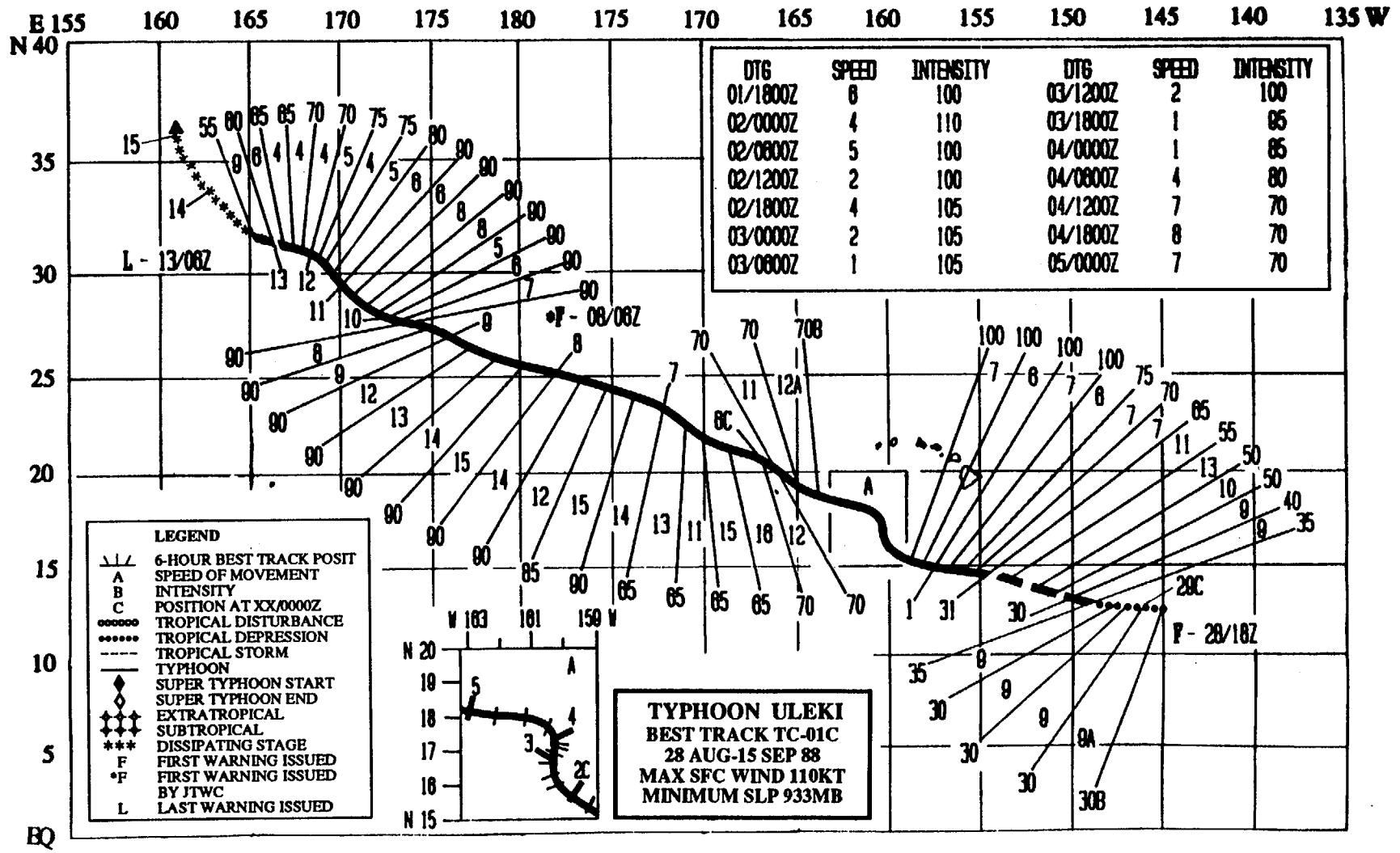

DTG	SPEED	INTENSITY	DTG	SPEED	INTENSITY
01/1800Z	6	100	03/1200Z	2	100
02/0000Z	4	110	03/1800Z	1	95
02/0600Z	5	100	04/0000Z	1	95
02/1200Z	2	100	04/0600Z	4	80
02/1800Z	4	105	04/1200Z	7	70
03/0000Z	2	105	04/1800Z	8	70
03/0600Z	1	105	05/0000Z	7	70

TYPHOON ULEKI (01C)

Uleki was only the third hurricane (Sarah (1967) and Peke (1987) were the previous two) in the past thirty years to form in the eastern North Pacific Ocean and cross the international dateline while in a warning status. Uleki tracked over 3,300 nm (6,105 km) during its eighteen day life span.

Uleki was first detected by the Central Pacific Hurricane Center (CPHC) at 281800Z August. During the next four days, Uleki tracked westward and intensified. CPHC's warnings were disseminated to military customers by the Naval Western Oceanography Center (NWOC). At 291800Z, Uleki had reached tropical storm intensity and was upgraded to a hurricane at 310000Z. The tropical cyclone slowed its forward motion and continued to intensify until 2 September, when it reached a peak intensity of 110 kt (57 m/sec). As Uleki approached the Hawaiian Islands, weather reconnaissance aircraft joined with satellite reconnaissance to watch the hurricane. At peak intensity, the direction of movement changed from west-northwestward to northward. Uleki headed directly towards the island of Oahu. The hurricane approached to within 270 nm (500 km) of Honolulu at 040000Z before changing course to the west-northwest and accelerating. The tropical cyclone began a weakening trend as it entered a shearing environment, and the upper-level outflow in the western semicircle became restricted. Uleki continued to move west-northwestward and approached the international dateline (Figure 3-01C-1). It appeared that

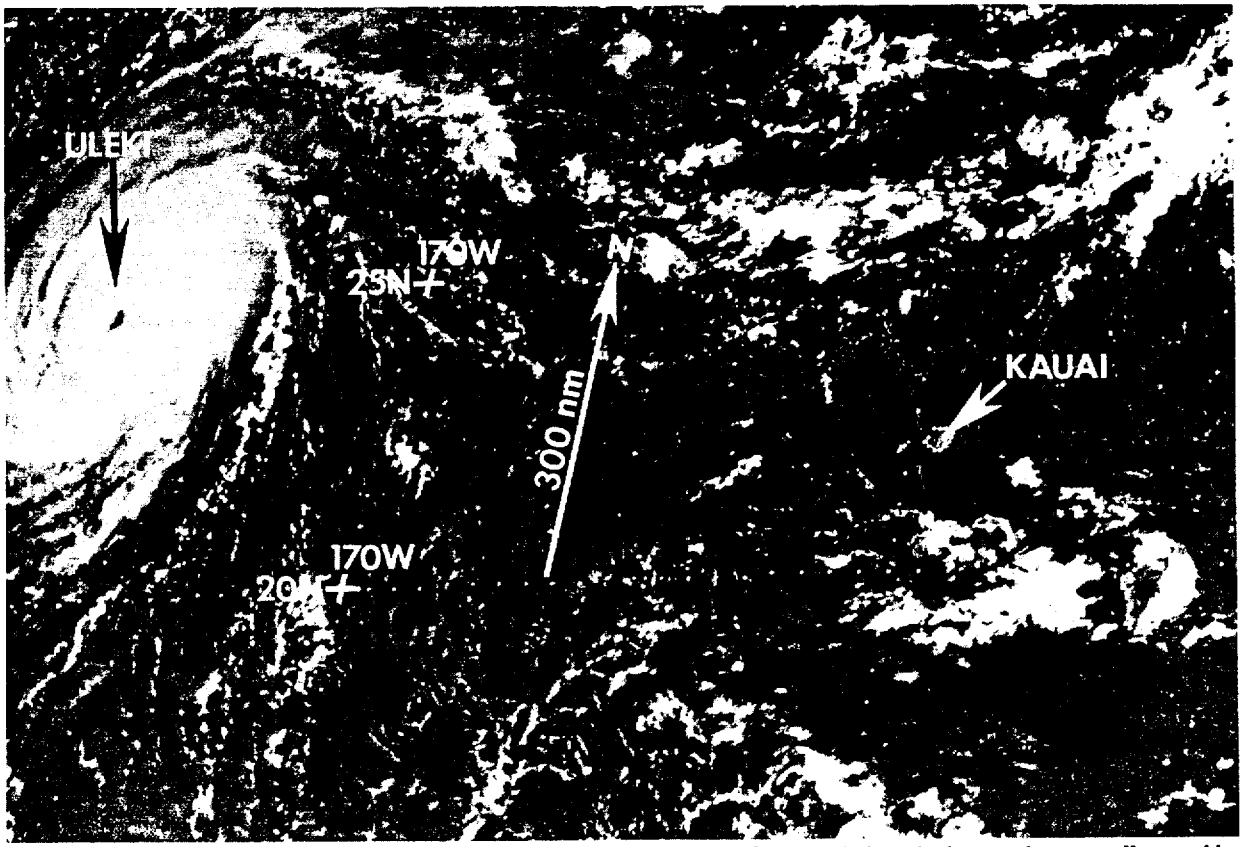

Figure 3-01C-1. Hurricane Uleki heads towards the international dateline. Note the distinct shadow on the eye wall caused by the low sun angle. The Hawaiian Islands are visible to the east of Uleki. Photo courtesy of the National Weather Service Forecast Office, Honolulu, Hawaii (071846Z September GOES West visual imagery).

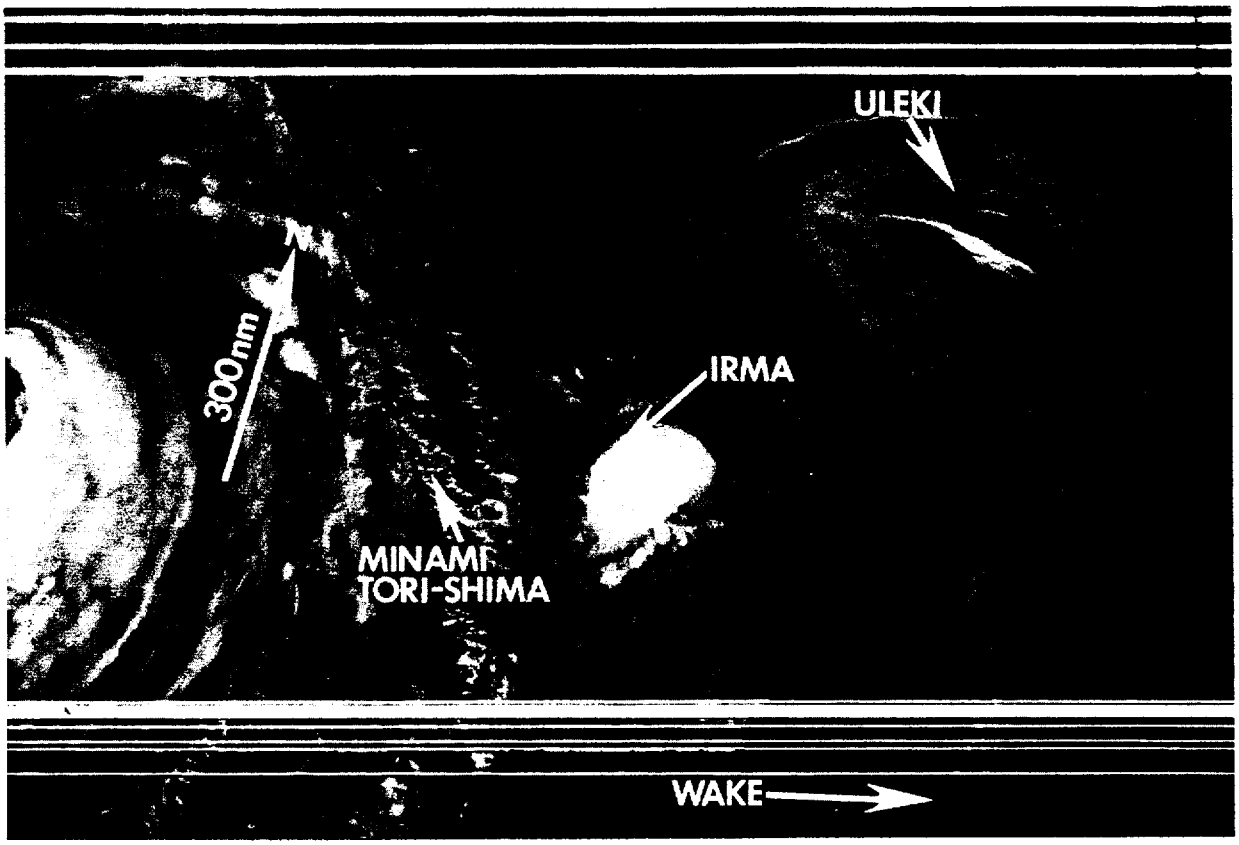

Figure 3-01C-2. Uleki, shortly after the final warning (130839Z September NOAA infrared imagery).

Uleki would be exiting CPHC and NWOC's area of responsibility, and entering JTWC's area of responsibility after the 080000Z warning.

Warning responsibility was transferred for the 080600Z warning and JTWC issued its first warning on Uleki. The system was redesignated Typhoon Uleki. At this time the tropical cyclone had an intensity of 90 kt (46 m/sec). Uleki pressed onward to the west-northwest along the southern edge of a subtropical ridge, and gradually slowed. At 100600Z, the speed of movement had dropped from 15 kt (28 km/hr) to 6 kt (11 km/hr). The typhoon had entered the weak 700 mb steering flow in an area between two anticyclones in the subtropical ridge. With a mid-latitude trough approaching from the west, Uleki was forecast to recurve during the next 24- to 48-hours. The trough caused the tropical cyclone to "step climb" to the north-northwest, but was not able to bring about recurvature. Uleki returned to a northwestward track and weakened in response to increased vertical wind shear and entrainment of low-level cooler air. At 130000Z, strong vertical wind shear associated with a second trough caused the tropical cyclone to weaken rapidly and be downgraded to a tropical storm. Satellite imagery showed a long, narrow plume of cirrus streaming from Uleki to the northeast. The final warning was issued at 130600Z (Figure 3-01C-2) and at 140000Z, all of Uleki's deep convection had been sheared away to the northeast. The low-level circulation center persisted over water until 15 September (Figure 3-01C-3).

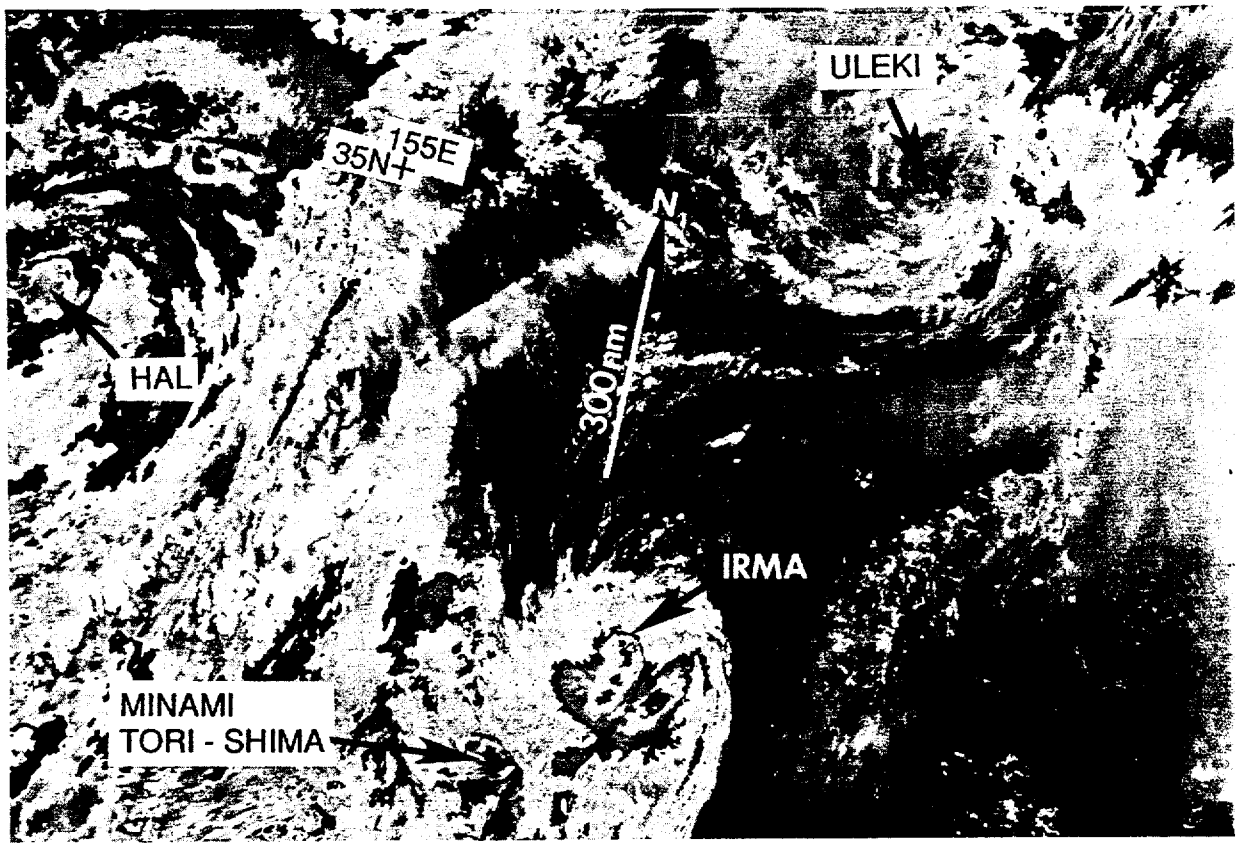

Figure 3-01C-3. Uleki dissipating over water (142247Z September DMSP infrared imagery).